T. J. Newby,

Evaporating Pan.

No. 108,288. Patented Oct. 11, 1870.

Fig. 1.

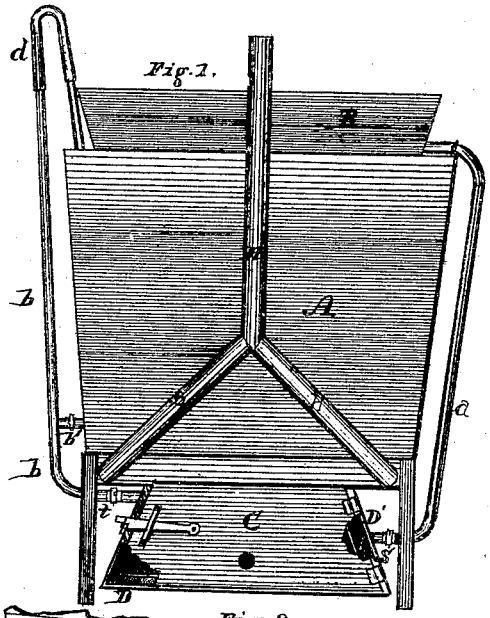


Fig. 2.

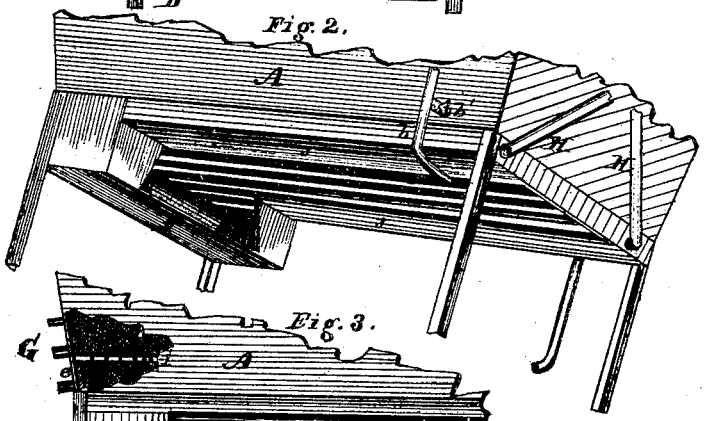
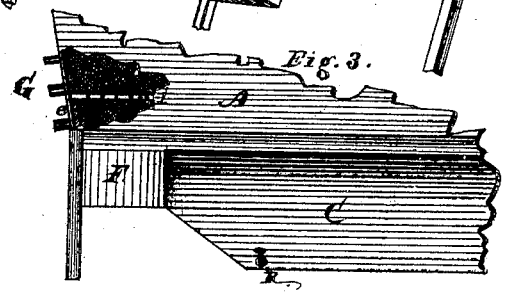


Fig. 3.



WITNESSES.

Thos. L. Bayliss

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THOMAS J. NEWBY, OF RICHMOND, INDIANA.

Letters Patent No. 108,288, dated October 11, 1870.

IMPROVEMENT IN APPARATUS FOR COOKING AND EVAPORATING.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, THOMAS J. NEWBY, of Richmond, Indiana, have invented new and useful Improvements in Apparatus for Feed-Cooking, Evaporating, &c., of which the following is a complete specification, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view.

Figure 2 is a view of the lower portion of the apparatus, in which it is tilted to show the bottom.

Figure 3 shows a section of the lower part of the apparatus, in which a portion of the side is represented broken away to show a perforated bottom.

The same letters in the different figures refer to corresponding parts.

My improvement relates chiefly to a double fire-box, through which the liquid is conducted from a tank or reservoir to the interior of the apparatus, for the purpose of economizing heat, and to the manner in which the liquid is so conducted.

C represents the fire-box, to be supported in some substantial manner against the bottom of the apparatus A.

The said fire-box, as shown at D and D', is double, so that a chamber is formed between the fire-plate and an outer one, embracing its sides, bottom, and rear.

B represents the reservoir, from which the liquid is conducted through pipe *a* into the heating-chamber of the fire-box.

The hydrostatic pressure carries the liquid from the fire-box chamber out through pipe *b*, and the short pipe *b'* into the interior of the apparatus.

Pipe *b'* is provided with a stop-cock, by which the supply to the apparatus is cut off, when desired.

Pipe *b* extends above reservoir B, by reason of which it retains the liquid which would otherwise be carried out by the pressure when pipe *b'* is closed.

The steam from the fire-box chamber escapes through pipe *b*.

The latter is provided with a loose joint, *d*, by means of which its end may be inserted into the reservoir, and the steam condensed or turned into the top of the apparatus, as shown in fig. 1, or will allow of a hose being attached, and the steam conducted into a neighboring vessel, if desired.

Pipes *a* and *b* are each provided with a coupling, *s* and *t*, to allow of the fire-box being removed.

To prevent liquid from being forced out through pipe *b* by the steam, when pipe *b'* is closed, pipe *a* is provided with a stop-cock, by which the supply of liquid to the fire-box chamber may be regulated, and the surface of the liquid at such time kept below the mouth of pipe *b*.

Pipe *b* is connected with the fire-box chamber close to the top of the latter, so as to allow the steam to escape.

An advantage will also be derived from connecting pipe *a* with the chamber, near the top of the latter, as, in case the reservoir should become empty, the escaping steam would immediately indicate the fact, and thus prevent said chamber from becoming empty.

The bottom of the apparatus is corrugated, as shown in fig. 2, and, by means of plates J and J', and the fire-box which incloses the space between said plates, three divisions of fire-flues are formed of the corrugations.

F represents a chamber at the rear of the apparatus and against the corrugated bottom, through which the products of combustion pass from the fire-box into the side divisions of flues, and thence out at pipes H.

The rear of the fire-box, which is beveled as shown in fig. 3, rests in the open space of chamber F, shown in fig. 2.

A plug is provided in the fire-box chamber, at R, by which the liquid may be drawn from said chamber, when desirable.

The apparatus is provided with a series of plugs, G, arranged vertically in its side, by which the liquid may be wasted at any desired height; thus, with the provision for supplying liquid, making said apparatus self-regulating as to the depth therein, which is desirable when cooking by steam.

The apparatus is provided with a perforated false bottom, I, fig. 3, resting on corner supports *e*, above the water-line, upon which articles to be steamed are placed.

This bottom or shelf, in the accompanying example, is of wood, which possesses some advantage, as regards cheapness, over metal.

Having thus fully described my said invention,

What I claim, and desire to secure by Letters Patent, is—

A liquid-chamber, connected with the fire-box, as described, in combination with the pipes *a*, *b*, and *b'*, and reservoir B, substantially as and for the purpose set forth.

THOS. J. NEWBY.

Witnesses:

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W. J. MEDEARIS.